44. (Amended) The method according to claim 22, wherein the autoantigen administered for the prophylaxis and treatment of scleroderma is selected from the group consisting of skin extracts and skin cell extracts.

45. (Amended) The method according to claim 22, wherein an autoantigen selected from the group consisting of eye lens proteins, S-antigens and S-antigen mixtures is administered for the prophylaxis and treatment of a disease selected from the group consisting of uveitis, phacouveitis and sympathetic opthalmia.

47. (Amended) The method according to claim 22, wherein the autoantigen administered for the prophylaxis and treatment of pernicious anaemia is selected from the group consisting of gastric cell extracts, parietal cell extracts and intrinsic factor.

REMARKS

I. Status of the Application

Claims 15-20, 22-38 and 40-51 are pending herein. Claims 21 and 39 have been cancelled. Claims 15-18, 22-25, 29-30, 33, 35, 38, 40, 44-45 and 47 have been amended in accordance with 37 C.F.R. § 1.121(c)(1). It is respectfully submitted that claims 15-18, 22-25, 29-30, 33, 35, 38, 40, 44-45 and 47, as amended, are supported by the specification as filed.

II. Election, Restriction

Applicant hereby elects the claims of Group I, i.e., claims 15-20, for prosecution herein.

III. Conclusion

In light of the foregoing amendments and remarks, it is believed that all matters set forth in the Office Action have been addressed. Applicant has made a diligent effort to advance the

prosecution of this application by electing the Group I claims, i.e., claims 15-20, for prosecution herein and by amending claims 15-18, 22-25, 29-30, 33, 35, 38, 40, 44-45 and 47.

Applicant submits that claims 15-20 are in condition for allowance, and an early formal Notice of Allowance of claims 15-20 is respectfully requested. Should the Examiner have any questions, he is invited to contact the undersigned at the telephone number listed below.

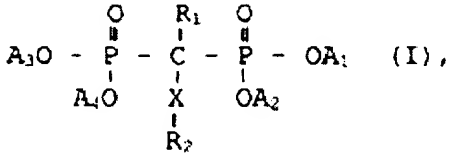
Respectfully submitted,

Dated: 7/8/02

Randall C. Brown
Registration No. 31,213
HAYNES AND BOONE, LLP
901 Main Street - Suite 3100
Dallas, Texas 75202-3789
Telephone: 214/651-5242
Facsimile: 214/200-0802
#1037272

MARKED UP VERSION OF THE CLAIMS

15. (Amended) A medicament for treating an autoimmune disease or allergy, comprising a first active ingredient selected from the group [which consists] consisting of bisphosphonic acids corresponding to general formula (I)



(I),

in which

A_1, A_2, A_3[,] and A_4 are [identical or different and are] independently selected from the group [which consists] consisting of

hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted aryl, substituted and unsubstituted aralkyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic residues, metals of [main group 1, 2] Groups I, II and [3] III of the [periodic system] Periodic Table of the elements, and substituted and unsubstituted ammonium or ammonium compounds derived from ethylenediamine or amino acids,

X is absent or is selected from the group consisting of alkylene, alkenylene and hydroxyalkylene,

R_1[,] and R_2 are[identical or different and are] independently selected from the group consisting of

H, OH, $-NH_2$, substituted and unsubstituted acyl, substituted and unsubstituted alkyl, substituted and unsubstituted aryl, substituted and unsubstituted cycloalkyl,

substituted and unsubstituted aralkyl, substituted and unsubstituted heterocyclic residues, $-SR_3$, Cl and $-NR_3R_4$,

in which

R_3[,] and R_4 are [identical or different and are] independently selected from the group consisting of

H, OH, substituted and unsubstituted acyl, substituted and unsubstituted alkyl, substituted and unsubstituted aryl, substituted and unsubstituted aralkyl, substituted and unsubstituted cycloalkyl and substituted and unsubstituted heterocyclic residues,

their pharmaceutically compatible salts, esters thereof, salts of the esters and compounds, which upon administration from the compounds according to formula (I) or their salts or esters as metabolites or catabolites,

and a second active ingredient wherein said second active ingredient is selected from the group consisting of an autoantigen ingredient and an allergen ingredient, wherein said autoantigen ingredient is selected from the group consisting of

at least one autoantigen specific for the autoimmune disease to be treated, fragments of said autoantigens having the same immunological characteristics [like] as said autoantigens, and derivatives of said autoantigens having the same immunological characteristics [like] as said autoantigens,

[or a second active]

and wherein said allergen ingredient is selected from the group consisting of

allergens specific for the allergy to be treated, fragments of said allergens having the same immunological characteristics [like] as said allergens, and derivatives of said allergens having the same immunological characteristics [like] as said allergens; and an excipient.

16. (Amended) The medicament of claim 15, wherein the bisphosphonic acid [is selected from the group consisting of] corresponds to general formula (I) and wherein:

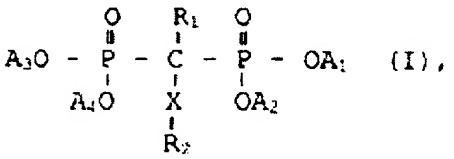
R_1 is selected from the group consisting of

H, OH[,] and $-NH_2$, and

R_2 is selected from the group consisting of

H, OH, $-NH_2$, substituted and unsubstituted acyl, substituted and unsubstituted alkyl having 1 to 12 carbon atoms, substituted and unsubstituted aryl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted aralkyl, substituted and unsubstituted heterocyclic residues, $-SR_3$, Cl and $-NR_3R_4$.

17. (Amended) A medicament for treating an autoimmune disease or allergy, comprising a first active ingredient selected from the group [which consists] consisting of bisphosphonic acids corresponding to general formula (I)



(I),

in which

A_1, A_2, A_3[,] and A_4 are [identical or different and are] independently selected from the group [which consists] consisting of

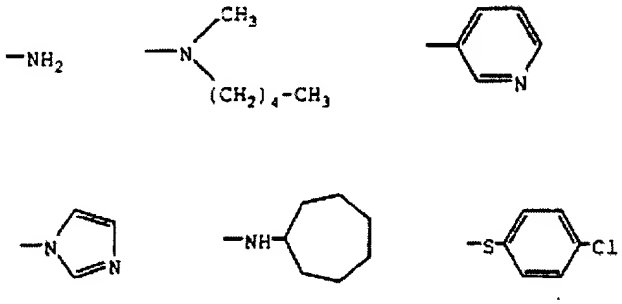
hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted aryl, substituted and unsubstituted aralkyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic residues, metals of [main group 1, 2] Groups I, II and [3] III of the [periodic system] Periodic Table of the elements, and substituted and unsubstituted ammonium or ammonium compounds derived from ethylenediamine or amino acids,

X is absent or is selected from the group consisting of $(CH_2)_{1-5}$[,] and amidino,

R_1 is selected from the group consisting of

H[,] and OH, and

R_2 is selected from the group consisting of



[in which

R3, R4 are identical or different and are selected from the group consisting of

H, OH, substituted and unsubstituted acyl, substituted and unsubstituted alkyl, substituted and unsubstituted aryl, substituted and unsubstituted aralkyl, substituted and unsubstituted cycloalkyl and substituted and unsubstituted heterocyclic residues,]

their pharmaceutically compatible salts, esters thereof, salts of the esters and compounds, which upon administration form the compounds according to formula (I) or their salts or esters as metabolites or catabolites,

and a second active ingredient wherein said second active ingredient is selected from the group consisting of an autoantigen ingredient and an allergen ingredient, wherein said autoantigen ingredient is selected from the group consisting of

at least one autoantigen specific for the autoimmune disease to be treated, fragments of said autoantigens having the same immunological characteristics [like] as said autoantigens, and derivatives of said autoantigens having the same immunological characteristics [like] as said autoantigens,

[or a second active]

and wherein said allergen ingredient is selected from the group consisting of

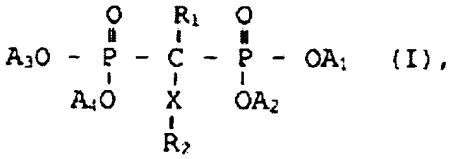
allergens specific for the allergy to be treated, fragments of said allergens having the same immunological characteristics [like] as said allergens, and derivatives of said allergens having the same immunological characteristics [like] as said allergens; and an excipient.

18. (Amended) The medicament of claim 15, wherein the autoantigen is selected from the group consisting of nervous system tissue extracts, collagen, thyroglobulin, acetylcholine receptor protein, DNA, islet cell extracts, human insulin, liver extracts, adrenal cortex extracts, skin extracts, muscle extracts, haemopoetic cell line extracts, heart extracts, eye

lens [proetins, S-antiens] proteins, S-antigens, gastric cell extracts, parietal cell extracts, intrinsic factor, and intestinal extracts.

22. (Amended) A method for treating an autoimmune disease or allergy, comprising administering a first active ingredient selected from the group [which consists] consisting of

bisphosphonic acids corresponding to general formula (I)



(I),

in which

A_1, A_2, A_3[,] and A_4 are [identical or different and are] independently selected from the group [which consists] consisting of

hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted aryl, substituted and unsubstituted aralkyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic residues, metals of [main group 1, 2] Groups I, II and [3] III of the [periodic system] Periodic Table of the elements, and substituted and unsubstituted ammonium or ammonium compounds derived from ethylenediamine or amino acids,

X is absent or is selected from the group consisting of alkylene, alkenylene and hydroxyalkylene,

R_1[,] and R_2 are [identical or different and are] independently selected from the group consisting of

H, OH, -NH_2, substituted and unsubstituted acyl, substituted and unsubstituted alkyl, substituted and unsubstituted aryl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted aralkyl, substituted and unsubstituted heterocyclic residues, -SR_3, Cl and –NR_3R_4,

in which

R_3[,] and R_4 are [identical or different and are] independently selected from the group consisting of

H, OH, substituted and unsubstituted acyl, substituted and unsubstituted alkyl, substituted and unsubstituted aryl, substituted and unsubstituted aralkyl, substituted and unsubstituted cycloalkyl and substituted and unsubstituted heterocyclic residues,

their pharmaceutically compatible salts, esters thereof, salts of the esters and compounds, which upon administration from the compounds according to formula (I) or their salts or esters as metabolites or catabolites,

and administering a second active ingredient wherein said second active ingredient is selected from the group consisting of an autoantigen ingredient and an allergen ingredient, wherein said autoantigen ingredient is selected from the group consisting of

at least one autoantigen specific for the autoimmune disease to be treated, fragments of said autoantigens having the same immunological characteristics [like] as said autoantigens, and derivatives of said autoantigens having the same immunological characteristics [like] as said autoantigens,

[or a second active]

and wherein said allergen ingredient is selected from the group consisting of

allergens specific for the allergy to be treated, fragments of said allergens having the same immunological characteristics [like] as said allergens, and derivatives of said allergens having the same immunological characteristics [like] as said allergens; and an excipient.

23. (Amended) The method of claim 22, wherein the wherein the bisphosphonic acid [is selected from the group consisting of] corresponds to general formula (I) and wherein:

R_1 is selected from the group consisting of

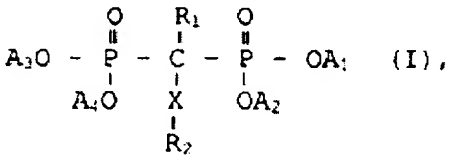
H, OH, and $-NH_2$, and

R_2 is selected from the group consisting of

H, OH, $-NH_2$, substituted and unsubstituted acyl, substituted and unsubstituted alkyl having 1 to 12 carbon atoms, substituted and unsubstituted aryl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted aralkyl, substituted and unsubstituted heterocyclic residues, $-SR_3$, Cl and $-NR_3R_4$.

24. (Amended) A method for treating an autoimmune disease or allergy, comprising administering a first active ingredient selected from the group [which consists] consisting of

bisphosphonic acids corresponding to general formula (I)



in which

A_1, A_2, A_3[,] and A_4 are [identical or different and are] independently selected from the group [which consists] consisting of

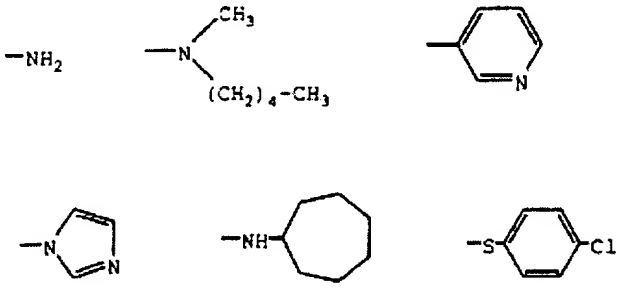
hydrogen, substituted and unsubstituted alkyl, substituted and unsubstituted aryl, substituted and unsubstituted aralkyl, substituted and unsubstituted cycloalkyl, substituted and unsubstituted heterocyclic residues, metals of [main group 1, 2] Groups I, II and [3] III of the[periodic system] Periodic Table of the elements, and substituted and unsubstituted ammonium or ammonium compounds derived from ethylenediamine or amino acids,

X is absent or is selected from the group consisting of $(CH_2)_{1-5}$[,] and amidino,

R_1 is selected from the group consisting of

H[,] and OH, and

R_2 is selected from the group consisting of



[in which

R3, R4 are identical or different and are selected from the group consisting of

H, OH, substituted and unsubstituted acyl, substituted and unsubstituted alkyl, substituted and unsubstituted aryl, substituted and unsubstituted aralkyl, substituted and unsubstituted cycloalkyl and substituted and unsubstituted heterocyclic residues,]

their pharmaceutically compatible salts, esters thereof, salts of the esters and compounds, which upon administration form the compounds according to formula (I) or their salts or esters as metabolites or catabolites,

and administering a second active ingredient wherein said second active ingredient is selected from the group consisting of an autoantigen ingredient and an allergen ingredient, wherein said autoantigen ingredient is selected from the group consisting of

at least one autoantigen specific for the autoimmune disease to be treated, fragments of said autoantigens having the same immunological characteristics [like] as said autoantigens, and derivatives of said autoantigens having the same immunological characteristics [like] as said autoantigens,

[or a second active]

and wherein said allergen ingredient is selected from the group consisting of

allergens specific for the allergy to be treated, fragments of said allergens having the same immunological characteristics [like] as said allergens, and derivatives of said allergens having the same immunological characteristics [like] as said allergens.

25. (Amended) The method of claim 22, wherein the autoantigen is selected from the group consisting of nervous system tissue extracts, collagen, thyroglobulin, acetylcholine receptor protein, DNA, islet cell extracts, human insulin, liver extracts, adrenal cortex extracts, skin extracts, muscle extracts, haemopoetic cell line extracts, heart extracts, eye lens [proetins, S-antiens] proteins, S-antigens, gastric cell extracts, parietal cell extracts, intrinsic factor, and intestinal extracts.

29. (Amended) The method according to claim 22, wherein [extracts from the] nervous system tissue extracts are administered for the prophylaxis and treatment of multiple sclerosis.

30. (Amended) The method according to claim [30,] 29, wherein [the extracts from] the nervous system tissue extracts are myelin basic protein (MBP).

33. (Amended) The method according to claim 22, wherein acetylcholine receptor protein is administered for the prophylaxis and treatment of [Hashimoto] myasthenia gravis.

35. (Amended) The method according to claim 22, wherein the autoantigen administered for the prophylaxis and treatment of diabetes mellitus is selected from the group consisting of islet cell extracts[,] and human insulin.

38. (Amended) The method according to claim 22, wherein adrenal cortex extracts are [used] administered for the prophylaxis and treatment of a disease selected from the group consisting of adrenalitis and Addison's disease.

40. (Amended) The method according to claim 22, wherein the autoantigen administered for the prophylaxis and treatment of polymyositis is selected from the group consisting of skin extracts[,] and muscle extracts.

44. (Amended) The method according to claim 22, wherein the autoantigen administered for the prophylaxis and treatment of scleroderma is selected from the group consisting of skin extracts[,] and skin cell extracts.

45. (Amended) The method according to claim 22, wherein [the] an autoantigen [administered for the prophylaxis and treatment of uveitis (phacouveitis, sympathetic opthalmia) is] selected from the group consisting of eye lens proteins, S-antigens [, S-antigen mixtures.] and S-antigen mixtures is administered for the prophylaxis and treatment of a disease selected from the group consisting of uveitis, phacouveitis and sympathetic opthalmia.

47. (Amended) The method according to claim 22, wherein the autoantigen administered for the prophylaxis and treatment of pernicious anaemia is selected from the group consisting of gastric cell extracts, parietal cell extracts[,] and intrinsic factor.